

IN THE CLAIMS:

1.-10. (Cancelled)

11. (New) A semiconductor processing apparatus, comprising:

a chamber in which at least one sample wafer as a processing object is processed;

a data collecting device for collecting and storing process data which is generated during processing of said at least one sample wafer, said process data including emission data generated within said chamber; and

a data storing device for storing data to be analyzed which is included in process data generated during a processing of another sample wafer, said data storing device enabling supply of said data stored therein at least while said data collecting device collects or stores said process data therein.

12. (New) A semiconductor processing apparatus according to Claim 11, wherein said data storing device stores therein a copy of the data stored in said data collecting device.

13. (New) A semiconductor processing apparatus according to Claim 11, wherein said data to be analyzed which is included in said process data stored in said data collecting device is transferable to said data storing device.

14. (New) A data processing apparatus for said semiconductor processing apparatus according to any one of Claims 11 to 13, wherein said data storing device is attachable to said semiconductor processing apparatus so as to be detachable therefrom and installable to said semiconductor processing device.

15. (New) A semiconductor processing apparatus according to Claim 11 or Claim 13, further comprising:

a data analyzing device for analyzing said data stored in said data storing device;

wherein said data analyzing device performs the analysis during operation of said data collecting device.

16. (New) A data processing apparatus for said semiconductor processing apparatus according to Claim 15, wherein said data storing device is attachable to said semiconductor processing apparatus so as to be detachable therefrom and installable to said semiconductor processing device.

17. (New) A semiconductor processing apparatus according to Claim 11 or Claim 13, further comprising:

a diagnosis device for diagnosing an operation of said semiconductor processing apparatus using said data stored in said data storing device;

wherein said diagnosis device performs the diagnosis during operation of said data collecting device.

18. (New) A data processing apparatus for said semiconductor processing apparatus according to Claim 17, wherein said data storing device is attachable to said semiconductor processing apparatus so as to be detachable therefrom and installable to said semiconductor processing device.

19. (New) A semiconductor processing apparatus comprising:
a chamber in which a sample wafer as a processing object is processed;
first and second data storing devices each receiving and storing data from said chamber which is generated during processing of said sample wafer, said data including data concerning emission light generated within said chamber during said processing; and
a selecting device which selectively sends said process data to one of said first and second data storing devices;
wherein said second data storing device enables reading said data stored in said second data storing device while said first data storing device stores said process data obtained from said chamber during processing of said sample wafer.

20. (New) A semiconductor processing apparatus according to claim 19, wherein said first data storing device enables reading said data stored in said second data storing device while said first data storing device stores said process data obtained from said chamber during processing of said sample wafer.

21. (New) A semiconductor processing apparatus according to Claim 19 or Claim 20, further comprising:

a data analyzing device for analyzing said data stored in said first or second data storing device;

wherein while one of said first and second data storing devices stores the process data from said chamber, said data analyzing device performs analysis using the other of said first and second data storing devices.

22. (New) A semiconductor processing device according to Claim 19 or Claim 20, further comprising:

a diagnosis device for diagnosing an operation of said semiconductor processing apparatus using said data stored in said first or second data storing device;

wherein while one of said first and second data storing devices stores the process data from said chamber, said diagnosis device performs diagnosis using the other of said first and second data storing devices.

23. (New) A data processing apparatus for said semiconductor processing device according to Claim 19, wherein said first and second data storing devices are attachable to said semiconductor processing apparatus so as to be detachable therefrom and installable to said semiconductor apparatus.

24. (New) An operating method for a semiconductor processing apparatus for processing a sample wafer as a processing object, comprising the steps of:

collecting data generated during processing of said sample wafer;

reading data to be analyzed within said collected data and transferring said read data to a data copying device which stores a copy of said read data thus transferred; and

analyzing said data stored in said data copying device.

25. (New) An operating method for a semiconductor processing apparatus for processing a sample wafer as a processing object, comprising the steps of:

collecting data generated during processing of said sample wafer;

reading data necessary for diagnosis of an operation of said semiconductor processing apparatus within said collected data and transferring said read data to a data storing device which stores a copy of the read data thus transferred; and

diagnosing said operation using said data stored in said data copying device.